# IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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| Application No.: 10/654,619 | § | Examiner: Nguyen, Van Kim T. |
| Filed: September 3, 2003 | § | Group/Art Unit: 2152 |
| Inventor(s): | § | Atty. Dkt. No: 5957-48401 |
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| | § | |
| Title: System for Transporting | § | |
|       Ethernet Frames over Very | § | |
|       High Speed Digital | § | |
|       Subscriber Lines | § | |
| | § | |
| | § | |
| | § | |

## APPEAL BRIEF

**Mail Stop Appeal Brief - Patents**
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir/Madam:

     Further to the Notice of Appeal filed January 21, 2008, Appellant presents this
Appeal Brief. Appellant respectfully requests that this appeal be considered by the Board
of Patent Appeals and Interferences.

## I.     REAL PARTY IN INTEREST

The present application is owned by Spinel Ektronix LLC.  An assignment of the present application to the owner is recorded at Reel 018407, Frame 0616.

## II.     RELATED APPEALS AND INTERFERENCES

Application Serial No. 10/430,480 is also on Appeal (for purposes of this paragraph, "the Application"), with the Appeal Brief having been filed recently. Appellant does not believe that a decision on the Appeal in the Application will have a bearing on the decision in this Appeal, nor that a decision on this Appeal will have a bearing on the decision in the Application.  Nevertheless, the Application is noted here because the Application and the present application are directed to related technology. The Board is invited to review the Application in its discretion.

## III.     STATUS OF CLAIMS

Claims 8-11 and 30-56 are pending.  Claims 1-7 and 12-29 are cancelled.  Claims 8-11 and 30-56 are rejected under 35 U.S.C. § 103(a).  It is this rejection that is being appealed.  A copy of claims 8-11 and 30-56 is included in the Claims Appendix attached hereto.

## IV.     STATUS OF AMENDMENTS

No unentered amendment to the claims has been filed after final rejection.

## V.     SUMMARY OF CLAIMED SUBJECT MATTER

Independent claim 8 is directed to a method of encapsulating Ethernet frames (e.g. 60, Fig. 4) onto a Very high speed Digital Subscriber Line (VDSL) facility (e.g. 16, Fig. 1).  The method comprises receiving Ethernet frames from an Ethernet source (see, e.g., specification page 6, lines 7-15; page 13, lines 4-6; page 14, lines 14-16).  The method

further comprises storing the Ethernet frames for subsequent forwarding (see, e.g., specification page 6, lines 22-25). The method still further comprises encapsulating the previously stored Ethernet frames within a plurality of frames (see, e.g., specification page 7, lines 8-15). Each Ethernet frame is encapsulated entirely within a respective frame of the plurality of frames (See, e.g., 90, Fig. 6 and Fig. 7, and specification page 16, line 4-page 17, line 3). The method still further comprises transmitting the plurality of frames over the VDSL facility (see, e.g., specification, page 7, lines 10-13).

Independent claim 10 is directed to a method of extracting Ethernet frames (e.g. 60, Fig. 4) from a Very high speed Digital Subscriber Line (VDSL) facility (e.g. 16, Fig. 1). The method comprises receiving frames from the VDSL facility (see, e.g., specification page 6, lines 11-15; page 13, lines 16-22; page 14, lines 22-25), wherein a given Ethernet frame is encapsulated entirely within a received frame (see, e.g., 90, Fig. 6 and Fig. 7, and specification page 16, line 4-page 17, line 3). The method further comprises extracting Ethernet frames from the received frames (see, e.g., specification page 6, lines 11-15; page 13, lines 23-25; page 14, lines 25-28). The method still further comprises storing the Ethernet frames for subsequent forwarding (see, e.g., specification page 7, lines 11-14). The method also comprises forwarding the Ethernet frames to an Ethernet source (see, e.g., specification page 6, lines 11-15; page 13, lines 26-27; page 14, lines 27-28).

Independent claim 38 is directed to a method. The method comprises receiving an Ethernet frame (e.g. 60, Fig. 4) from an Ethernet source (see, e.g., specification page 6, lines 7-15; page 13, lines 4-6; page 14, lines 14-16); encapsulating the Ethernet frame within a first frame (see, e.g., 90, Fig. 6 and specification page 7, lines 8-15); and transmitting the first frame over a very high speed digital subscriber line (VDSL) facility (e.g. 16, Fig. 1 and specification page 7, lines 10-13).

Independent claim 48 is directed to a method comprising encapsulating an Ethernet frame (e.g. 60, Fig. 4) within a first frame (e.g. 90, Fig. 6) to be transmitted over a very high speed digital subscriber line (VDSL) facility (e.g. 16, Fig. 1, specification

page 7, lines 8-15; page 16, line 4-page 17, line 3; page 7, lines 10-13).

Independent claim 53 is directed to a method comprising extracting an Ethernet frame (e.g. 60, Fig. 4) from a first frame (e.g. 90, Fig. 6) received over a very high speed digital subscriber line (VDSL) facility e.g. 16, Fig. 1, specification page. 6, lines 11-15; page 13, lines 23-27; page 14, lines 25-28).

Appellant notes that, while various dependent claims are argued separately below, none of these dependent claims are in means plus function or step plus function form as permitted under 35 U.S.C. § 112, paragraph 6. Accordingly, since 37 C.F.R. § 41.37(v) only requires summary of the separately argued dependent claims that are subject to 35 U.S.C. § 112, paragraph 6, no summary of the dependent claims is provided in this section.

## VI.   GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

1.      Claims 8-11, 38-39, 41, 48-51, and 53-55 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Olshansky et al, U.S. Patent No. 6,061,357 ("Olshansky") in view of Terry, U.S. Patent No. 6,178,161 ("Terry").

2.      Claims 30-32, 34-36, 40, 42-44, 46-47, 52, and 56 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Olshansky in view of Terry and Treadaway et al., U.S. Patent No. 7,002,941 ("Treadaway").

3.      Claims 33, 37, and 45 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Olshansky in view of Terry and Snodgrass et al., U.S. Patent No. 5,365,551 ("Snodgrass").

## VII.   ARGUMENT

### A.  First Ground of Rejection:

Claims 8-11, 38-39, 41, 48-51, and 53-55 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Olshansky in view of Terry.   Appellant traverses this rejection for at least the following reasons.

#### 1.  Claims 8-11, 38, 41, 48-50, and 53-55:

Appellant respectfully submits that claims 8-11 and 30-56 recite a combination of features not taught or suggested in the cited art.  For example, claim 38 recites a combination of features including:  "encapsulating the Ethernet frame within a first frame; and transmitting the first frame over a very high speed digital subscriber line (VDSL) facility".

In the Final Office Action mailed October 22, 2007 ("Office Action"), the Examiner asserted that the combination of Olshansky and Terry teaches the above highlighted features, citing Terry to teach encapsulation.  As outlined at length below, Appellant disagrees that the proposed combination establishes a *prima facie* case of obviousness.  **First**, the proposed modification of Olshansky by Terry would not work—indeed, if modified as proposed by the Office Action, Olshansky would not work for its

intended purpose.  **Second**, the alleged motivation to combine these two references that is advanced in the Office Action is fundamentally flawed.  **Finally**, even if there were a valid motivation to combine Olshansky and Terry, the Office Action does not satisfy its burden with regard to features that are admitted to be lacking from this proposed combination.

a.  One Skilled in the Art Would Not Look to Combine the Olshansky and Terry References as the Proposed Combination of Would Not Work

Terry teaches encapsulating an Ethernet frame within an Ethernet Collision Avoidance Protocol (ECAP) frame (an "ECAP" frame is a term that is defined by Terry, as opposed to an industry standard definition).  See, for example, Fig. 2 of Terry. Notably, Terry's ECAP frame is large enough to encapsulate an Ethernet frame, since the ECAP frame is defined by Terry to be a frame that includes the encapsulated Ethernet frame, preceded by overhead (O/H in Fig. 2) and followed by a check sequence (CHK in Fig. 2).  In contrast, ADSL frames (as taught in Olshansky) are **fixed-size frames** defined by the ADSL specification (for a given transmission rate).  For example, Appellant refers to the copy of the ADSL specification (ITU G.992.1) attached to the Response to Office Action filed December 20, 2007 (the "Previous Response"), as well as an article by Mike Rodbell titled "ADSL Frame Formats - Digital Delivery" dated February of 2000.  (Both references are included in the Evidence Appendix (section IX) of this Appeal Brief). Section 7.4 of the ADSL specification describes the fixed frame structure.  Additionally, the Rodbell article illustrates the fixed frame format (see Fig. 1)

Terry's teachings regarding ECAP frames include:  "FIG. 2 illustrates one example of an ECAP data frame, comprising overhead information O/H, followed by a single Ethernet frame having the known form described below, followed by a check sequence CHK."  (Terry, col. 6, lines 40-43)  Terry goes on to teach that the "O/H field at the start of the ECAP frame for example consists of a few bytes comprising a preamble and start-of-frame (SOF) indication of a suitable form for the modulation method in use by the modems 12 and 14, possibly followed by other information such as an ECAP frame sequence number for frame identification in known manner (e.g. for identifying

frames for acknowledgement or retransmission). The check sequence CHK at the end of the ECAP frame conveniently comprises a CRC sequence which can be produced in exactly the same manner as the FCS field of the Ethernet frame, the CRC operating on all of the information in the ECAP frame following the SOF indication up to and including the FCS at the end of the Ethernet frame." (Terry, col. 7, lines 13-25). Accordingly, Terry's ECAP frames are **variable length frames** based on the encapsulated Ethernet frame size. These teachings simply cannot be applied to ADSL's fixed-length frames without leaving the ADSL modems unable to communicate with each other. As known to one of ordinary skill in the art, the ADSL modems rely on the ADSL specification to communicate and thus expect fixed-length frames at regular intervals, not variable length frames as taught by Terry. Indeed, Terry's ECAP frames may even be larger than the fixed-length frames of ADSL.

Thus, the mere teaching of encapsulating Ethernet frames in variable-length, non-standard ECAP frames is insufficient to teach the skilled artisan how to encapsulate Ethernet frames in fixed-size ADSL frames. Modification of the ADSL frame definition would be required, and there is no teaching in either Terry or Olshansky that would either lead one to make such modifications, or explain how one would modify the ADSL frame to provide a workable solution. Given the absence of such teachings in Terry and Olshansky, Appellant can only assume that the Examiner is improperly relying on the instant Application for such motivation, as the Application *does* teach how to encapsulate Ethernet frames in frames for transmission on VDSL and how to transmit those frames on the VDSL facility (even though the VDSL specification defines fixed-size frames).

The Examiner responded to at least some of the above remarks in the Advisory Action mailed January 10, 2008 ("Advisory Action"), by asserting that Appellant is arguing features not found in the claims, and that limitations in the specification are not read into the claims. In making such an assertion, it appears that the Examiner misunderstands Appellant's argument. Appellant is arguing that the alleged combination of Terry and Olshansky cannot be made as proposed, because of the failure to teach in either reference how to modify Olshansky's ADSL frames to encapsulate Ethernet

frames. As a general matter, the question of whether a proposed combination can be made is distinct from the question of whether the claims read on the proposed combination. More particularly, whether a proposed combination of references is valid is a threshold that must be crossed before comparing such a combination to a given claim. Here, Appellant's contention is that the proposed combination of Terry and Olshansky cannot be made. If Appellant is correct in this contention, such a combination would not appear to be useful in rejecting *any* claim, let alone Appellant's claims Appellant's argument thus has nothing to do with arguing "features that are in the claims". [1]

In sum, Terry and Olshansky cannot be combined as suggested by the Examiner. Since such teachings are not found in the art, it would not be obvious to make the modification suggested in the Office Action.

b. The Alleged Motivation to Combine Olshansky and Terry is Fundamentally Flawed

Furthermore, the Examiner concludes that it would be obvious to implement the encapsulation taught by Terry into Olshansky to reduce cross talk and other interference (see Office Action, page 3, third paragraph). Appellant respectfully disagrees. First, it is not clear that Olshansky is concerned with noise and cross talk, and thus the skilled artisan would not be motivated to look for teachings regarding noise and cross talk when considering Olshansky's system. Olshansky's system is generally concerned with flow-controlling transmission and reception of packets over ADSL. There is no indication in Olshansky that noise and cross talk are of any significance or potentially problematic in his system.

Second, even if one were to assume that noise and cross talk were a motivation for the skilled artisan to look to Terry, Terry's encapsulation has nothing to do with reducing cross talk and other interference. Instead, Terry accomplishes these reductions,

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[1] Furthermore, to the extent that the Examiner is arguing that Appellant is somehow reading the references too narrowly, Appellant respectfully disagrees. Appellant has clearly supported the contentions above with citations from the references.

e.g., by using a lower transmission rate when there are fewer packets to transmit, including:

> *selecting a communication mode providing a relatively lower transmitted bit rate in response to there being no buffered data packets to be transmitted and selecting a communication mode providing a relatively higher transmitted bit rate when there are buffered data packets to be transmitted...The use of a lower frequency reduces signal levels and coupling during relatively idle (no data transmission) times, so that over many similar communications there is an aggregate reduction in interference and a consequent increase in aggregate communications capacity.* (Terry, col. 2, lines 25-32 and lines 38-42)

Terry also teaches limiting cross talk and other interference by monitoring noise energy:

> *"the communications system provides half duplex communications on the communications path, and the noise energy received via the communications path is monitored during a monitoring period following receipt of a signal burst via the communications path and before transmission of a signal burst in an opposite direction via the communications path. The communications system can provide for any of a plurality of communication modes providing different transmission rates for the signal bursts on the communications path, the method preferably further comprising the step of changing the communication mode for signal bursts in dependence upon the determined signal to noise ratio."* (Terry, col. 3, line 65-col. 4, line 10).

Accordingly, Terry's teachings regarding avoiding cross talk would not lead one to use Terry's encapsulation teachings, but rather would lead one to use Terry's variable transmission frequencies and noise energy monitoring, as discussed above.

The Examiner responds to these remarks in the Advisory Action by asserting that the fact that Appellant has recognized another advantage that would naturally flow from following the suggestion of the prior art cannot be the basis of patentability when the differences would otherwise be obvious. Again, it appears that the Examiner has misunderstood the argument. Appellant is <u>not</u> asserting that Appellant has recognized a new advantage that would flow from the alleged combination of Terry and Olshansky. Rather, Appellant is illustrating why the teachings of Terry and Olshansky would not lead one of skill in the art to combine the reference to make the invention recited in claim 38. The Office Action asserted that one of skill in the art would find it obvious to use Terry's encapsulation in Olshansky's system in order to avoid noise and crosstalk. As stated

above, the flaw in this argument is two-fold: 1) the complete lack of concern with noise and crosstalk in Olshansky; and, 2). the fact that Terry's encapsulation teachings have nothing to do with noise and crosstalk. Therefore, the Examiner has simply not established any plausible reason to modify Olshansky with Terry to arrive at the claimed invention.

### c. The Examiner Improperly Ignores Significant Technical Differences between VDSL and ADSL; Merely Arguing that Each is a Member of the Same "Family"

Still further, the Office Action asserts that it would be obvious to change from the ADSL facilities taught by Olshansky to the VDSL facilities recited in claim 10 because ADSL and VDSL are both members of the DSL family (see Office Action, page 3, fourth paragraph). The fact that ADSL and VDSL are members of the same "family" is an insufficient basis for establishing that it would be obvious to change from one to the other. The Office Action has not proven how the differences in ADSL and VDSL would be overcome, and such proof is required in order to establish a *prima facie* case of obviousness.

Appellant attached a copy of the VDSL specification to the Previous Response (and includes it in the Evidence Appendix below) as well (ITU G.993.1). If one compares the ADSL and VDSL specifications, there are numerous differences at even the most basic definitional levels. For example, as seen in the attached, the ADSL specification provides up to 4 AS bearer channels that carry downstream traffic and up to 3 LS bearer channels that carry duplex traffic (see, e.g., the Rodbell article, third paragraph). On the other hand, the VDSL specification uses frequency division duplexing to provide two upstream and two downstream frequency bands (see VDSL specification, page 7, section 6.1). Accordingly, the mere fact that ADSL and VDSL are part of the same family does not indicate that one type of transmission can be used in lieu of another.

The Examiner responds to these remarks in the Advisory Action, asserting that the test for obviousness is not whether the features of a secondary reference may be

bodily incorporated into the structure of the primary reference, nor that the claimed invention must be expressly suggested by the reference, but rather what the combined teachings would have suggested to one of skill in the art. It again appears that the Examiner has misunderstood the remarks. Appellant is arguing that the combined teachings fail to teach what the Examiner has suggested. Appellant has illustrated how the specifications of ADSL and VDSL differ markedly from each other. Therefore, even if the combination of Olshansky and Terry could be made as suggested and that ADSL frames could encapsulate Ethernet frames, it would **not** follow that VDSL frames could encapsulate Ethernet frames just because ADSL and VDSL are in the same family. That is, the mere fact that ADSL and VDSL share an acronym ("DSL") is **not** sufficient evidence that a modification that might be possible in one standard (ADSL) would also be possible in another standard from the same "family" (VDSL).

Claim 8 recites a combination of features including: "encapsulating said previously stored Ethernet frames within a plurality of frames, … and transmitting said plurality of frames over said VDSL facility". The same teachings of Olshansky and Terry, highlighted above with regard to claim 38, are alleged to teach the above highlighted features of claim 8. Appellant respectfully submits that Olshansky and Terry do not teach or suggest the above highlighted features of claim 8 either.

Claim 10 recites a combination of features including: "receiving frames from said VDSL facility, … extracting Ethernet frames from the received frames". The same teachings of Olshansky and Terry, highlighted above with regard to claim 38, are alleged to teach the above highlighted features of claim 10. Appellant respectfully submits that Olshansky and Terry do not teach or suggest the above highlighted features of claim 10 either.

Claim 48 recites a combination of features including: "encapsulating an Ethernet frame within a first frame to be transmitted over a very high speed digital subscriber line (VDSL) facility". The same teachings of Olshansky and Terry, highlighted above with regard to claim 38, are alleged to teach the above highlighted features of claim 48.

Appellant respectfully submits that Olshansky and Terry do not teach or suggest the above highlighted features of claim 48 either.

Claim 53 recites a combination of features including: "extracting an Ethernet frame from a first frame received over a very high speed digital subscriber line (VDSL) facility". The same teachings of Olshansky and Terry, highlighted above with regard to claim 38, are alleged to teach the above highlighted features of claim 53. Appellant respectfully submits that Olshansky and Terry do not teach or suggest the above highlighted features of claim 53 either.

For at least the above stated reasons, Appellant submits that the rejection of claims 8, 10, 38, 48, and 53 is in error and requests reversal of the rejection. The rejection of claims 9 and 30-33 (dependent from claim 8), claims 11 and 34-37 (dependent from claim 10), claims 39-47 (dependent from claim 38), claims 49-52 (dependent from claim 48), and claims 54-56 (dependent from claim 53) are similarly in error for at least the above stated reasons, and reversal of the rejection is requested. Each of claims 9, 11, 30-37, 39-47, 49-52, and 54-56 recite additional combinations of features not taught or suggested in the cited art.

### 2. Claim 39
*Olshansky/Terry do not teach extracting an Ethernet frame from a received frame*

Claim 39 depends from claim 38. Accordingly, the rejection of claim 39 is in error for at least the reasons highlighted above with regard to claim 38. Additionally, claim 39 recites a combination of features including: "receiving a second frame over the VDSL facility; [and] extracting a second Ethernet frame from the second VDSL frame."

The Examiner relies on the same faulty combination of Olshansky and Terry, highlighted above with regard to claim 38, to allegedly teach the above highlighted features of claim 39. However, Olshansky and Terry fail to teach encapsulating an Ethernet Frame in a VDSL frame, as highlighted above. Olshansky and Terry also fail to teach "receiving a second frame over the VDSL facility; [and] extracting a second

Ethernet frame from the second VDSL frame" as recited in claim 39. That is, since Olshansky and Terry fail to teach encapsulating an Ethernet frame to be transmitted on VDSL, Olshansky and Terry also fail to teach extracting an Ethernet frame from a frame received on VDSL.

For at least the above stated reasons, Appellant submits that the rejection of claim 39 is in error and requests reversal of the rejection.

### 3. Claim 51

*Olshansky/Terry do not teach extracting an Ethernet frame from a received frame*

Claim 51 depends from claim 48. Accordingly, the rejection of claim 51 is in error for at least the reasons highlighted above with regard to claim 48. Additionally, claim 51 recites a combination of features including: "extracting another Ethernet frame from another frame."

As with claim 39, the Examiner relies on the same faulty combination of Olshansky and Terry, highlighted above with regard to claim 48, to allegedly teach the above highlighted features of claim 51. However, Olshansky and Terry fail to teach encapsulating an Ethernet Frame in a VDSL frame, as highlighted above. Olshansky and Terry also fail to teach "extracting another Ethernet frame from another frame" as recited in claim 51. That is, since Olshansky and Terry fail to teach encapsulating an Ethernet frame to be transmitted on VDSL, Olshansky and Terry also fail to teach extracting an Ethernet frame from a frame received on VDSL.

For at least the above stated reasons, Appellant submits that the rejection of claim 51 is in error and requests reversal of the rejection.

**B. Second Ground of Rejection:**

Claims 30-32, 34-36, 40, 42-44, 46-47, 52, and 56 are rejected under 35 U.S.C. §
103(a) as being unpatentable over Olshansky in view of Terry and Treadaway.
Appellant traverses this rejection for at least the following reasons.

**Claims 30-32, 34-36, 40, 42-44, 46-47, 52, and 56**

*Treadaway's frames are also large enough to encapsulate Ethernet frames*

Claims 30-32, 34-36, 40, 42-44, 46-47, 52, and 56 depend from respective ones of
the claims discussed above with regard to the first ground of rejection. Accordingly, the
rejection of claims 30-32, 34-36, 40, 42-44, 46-47, 52, and 56 is in error for at least the
reasons highlighted above with regard to the first ground.

The Examiner adds Treadaway to the proposed combination of Olshansky and
Terry, as allegedly teaching various features of claims 30-32, 34-36, 40, 42-44, 46-47, 52,
and 56. Treadaway does not cure the deficiencies in the Olshansky/Terry combination
with regard to the claims on which claims 30-32, 34-36, 40, 42-44, 46-47, 52, and 56
depend. Accordingly, the rejection of claims 30-32, 34-36, 40, 42-44, 46-47, 52, and 56
is in error for at least the above highlighted reasons.

In addition, Appellant further submits that Treadaway, similar to Olshansky,
appears to teach a radio signal frame that is defined by Treadaway (as opposed to relying
on some industry standard). Thus, Treadaway's frames are large enough to encapsulate
the Ethernet frames, just like Olshansky's frames. Accordingly, for reasons similar to
those highlighted above with respect to Olshansky and Terry, it is not obvious to combine
Treadaway's radio frames with Terry's teachings related to ADSL frames.

For at least the above stated reasons, Appellant submits that the rejection of claim
30-32, 34-36, 40, 42-44, 46-47, 52, and 56 is in error and requests reversal of the
rejection.

**Third Ground of Rejection:**

Claims 33, 37, and 45 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Olshansky in view of Terry and Snodgrass. Appellant traverses this rejection for at least the following reasons.

### Claims 33, 37, and 45

*The rejection is improper and does not cure the failure in the earlier rejections*

Claims 33, 37, and 45 depend from claims 32, 36, and 43 respectively. Accordingly, the rejection of claims 33, 37, and 45 is in error for at least the reasons highlighted above with regard to claims 32, 36, and 43.

The Examiner adds Snodgrass to the proposed combination of Olshansky and Terry, as allegedly teaching features of claims 33, 37, and 45. At the outset, Appellant respectfully notes that such rejection is improper. More specifically, Claims 33, 37, and 45 depend from claims that stand rejected over Olshansky, Terry, <u>and</u> Treadaway. Snodgrass is only relied on to allegedly teach the features of claims 33, 37, and 45. Because the Examiner ignores the Treadaway art in making the rejection, claims 33, 37, and 45 cannot be properly rejected over an alleged combination of Olshansky, Terry, and Snodgrass.

Even were the rejection proper, Applicants submit that Snodgrass does not cure the deficiencies in the Olshansky/Terry combination with regard to the first ground of rejection. Accordingly, the rejection of claims 33, 37, and 45 is in error for at least the above highlighted reasons.

For at least the above stated reasons, Appellant submits that the rejection of claim 33, 37, and 45 is in error and requests reversal of the rejection.

## CONCLUSION

For the foregoing reasons, it is submitted that the Examiner's rejections of claims 8-11 and 30-56 are erroneous, and reversal of the decision is respectfully requested.

The Commissioner is authorized to charge the appeal brief fee of $510 and any other fees that may be due to Meyertons, Hood, Kivlin, Kowert, & Goetzel, P.C. Deposit Account No. 501505/5957-48401/LJM.

Respectfully submitted,

/Lawrence J. Merkel/
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Date: <u>July 3, 2008</u>

**VIII.  CLAIMS APPENDIX**

The claims on appeal are as follows.

8.  A method of encapsulating Ethernet frames onto a Very high speed Digital Subscriber Line (VDSL) facility, said method comprising:

receiving Ethernet frames from an Ethernet source;

storing said Ethernet frames for subsequent forwarding;

encapsulating said previously stored Ethernet frames within a plurality of frames, wherein each Ethernet frame is encapsulated entirely within a respective frame of the plurality of frames; and

transmitting said plurality of frames over said VDSL facility.

9.  The method according to claim 8, wherein said Ethernet source comprises a 10BaseT Ethernet source.

10.  A method of extracting Ethernet frames from a Very high speed Digital Subscriber Line (VDSL) facility, said method comprising:

receiving frames from said VDSL facility, wherein a given Ethernet frame is encapsulated entirely within a received frame;

extracting Ethernet frames from the received frames;

storing said Ethernet frames for subsequent forwarding; and

forwarding said Ethernet frames to an Ethernet source.

11.  The method according to claim 10, wherein said Ethernet source comprises a 10BaseT Ethernet source.

30.  The method as recited in claim 8 wherein the Ethernet source comprises a 100BaseT Ethernet source.

31. The method as recited in claim 8 wherein the encapsulating comprises inserting a length field prior to the Ethernet frame.

32. The method as recited in claim 31 wherein the encapsulating further comprises inserting a preamble prior to the length field.

33. The method as recited in claim 32 wherein the preamble comprises a Barker code.

34. The method as recited in claim 10 wherein the Ethernet source comprises a 100BaseT Ethernet source.

35. The method as recited in claim 10 wherein the encapsulating comprises inserting a length field prior to the Ethernet frame.

36. The method as recited in claim 35 wherein the encapsulating further comprises inserting a preamble prior to the length field.

37. The method as recited in claim 36 wherein the preamble comprises a Barker code.

38. A method comprising:
    receiving an Ethernet frame from an Ethernet source;
    encapsulating the Ethernet frame within a first frame; and
    transmitting the first frame over a very high speed digital subscriber line (VDSL)
        facility.

39. The method as recited in claim 38 further comprising:
    receiving a second frame over the VDSL facility;
    extracting a second Ethernet frame from the second VDSL frame; and
    transmitting the second Ethernet frame to the Ethernet source.

40. The method as recited in claim 38 wherein the Ethernet source comprises a 100BaseT Ethernet source.

41. The method as recited in claim 38 wherein the Ethernet source comprises a 10BaseT Ethernet source.

42. The method as recited in claim 38 wherein the encapsulating comprises inserting a length field prior to the Ethernet frame.

43. The method as recited in claim 42 wherein the encapsulating further comprises inserting a preamble prior to the length field.

44. The method as recited in claim 43 wherein the preamble comprises a plurality of bytes exhibiting high autocorrelation properties.

45. The method as recited in claim 43 wherein the preamble comprises a Barker code.

46. The method as recited in claim 43 wherein the first frame excludes an Ethernet preamble that preceded the Ethernet frame on an Ethernet medium.

47. The method as recited in claim 46 where the first frame further excludes an Ethernet start of frame symbol that preceded the Ethernet frame on an Ethernet medium.

48. A method comprising encapsulating an Ethernet frame within a first frame to be transmitted over a very high speed digital subscriber line (VDSL) facility.

49. The method as recited in claim 48 further comprising transmitting the first frame over the VDSL facility.

50. The method as recited in claim 48 further comprising receiving the Ethernet frame from an Ethernet source.

51. The method as recited in claim 48 further comprising extracting another Ethernet frame from another frame.

52. The method as recited in claim 48 further comprising encapsulating a plurality of Ethernet frames in respective frames, wherein the plurality of Ethernet frames are variable length.

53. A method comprising extracting an Ethernet frame from a first frame received over a very high speed digital subscriber line (VDSL) facility.

54. The method as recited in claim 53 further comprising transmitting the Ethernet frame on an Ethernet facility.

55. The method as recited in claim 53 further comprising receiving the first frame from the VDSL facility.

56. The method as recited in claim 53 further comprising receiving a plurality of Ethernet frames, wherein the plurality of Ethernet frames are variable length.

# IX. EVIDENCE APPENDIX

This Appeal Brief refers to the following documents, which were attached to the Previous Response and are also attached hereto:

1. Asymmetric Digital Subscriber Line (ADSL) Transceivers (ITU G.992.1) 6/1999.
2. "ADSL Frame Formats - Digital Delivery" dated February of 2000 by Mike Rodbell.
3. Very High Speed Digital Subscriber Line Transceivers (ITU G.993.1) 6/2004.

## X. RELATED PROCEEDINGS APPENDIX

There are no related proceedings known to Appellant.